

surface of the bony plates of the Placoderms is covered with stellate tubercles, that of *Dinichthys* is only marked with fine granulations, with slightly deeper and very irregular furrows. The fins are only known from a fragment 6 inches long and 3 or 4 inches broad, which probably formed part of a median fin with ossified rays as thick as a man's little finger.

Thus, as we pass from the *Dipteri* of the Devonian to the existing *Ceratodus Forsteri* by means of the Carboniferous *Ctenodus* and the Triassic *Ceratodus*, so *Dinichthys* binds together *Coccosteus*, *Pterichthys*, *Asterolepis*, and *Lepidosiren*, although in both cases we by no means possess all the intermediate forms.—*Bibl. Univ.* June 15, 1877, *Arch. des Sci.* p. 195.

*On an Ostracode Crustacean of a new Genus (Acanthopus), met with in the deep Waters of the Lake of Geneva.* By M. H. VERNET.

This entomostracan cannot be referred to any type hitherto observed in fresh water; it belongs to the marine family Cytheridæ. Like the representatives of that family it possesses only a single pair of maxillæ, and, on the other hand, three pairs of feet armed with strong hooks at their basal articulation (the other freshwater Ostracodes having two pairs of maxillæ and two pairs of legs). The rudimentary postabdomen is reduced to two rounded lobes, each bearing two hairs. The antennæ also much more resemble the type of the Cytheridæ than that of the Cypridæ.

The reproductive apparatus does not present any thing peculiar; it resembles that of the Ostracodes in general. Besides the sexual tube there is a *receptaculum seminis* in the female, and a very complicated chitinous copulatory apparatus in the male. The vulvæ are placed below the two postabdominal lobes.

With regard to its mode of life, this crustacean is unable to leave the bottom. It does not swim at all; it sometimes creeps, but usually buries itself, and thus travels in the mud and organic débris by the aid of its feet and antennæ. The hairs and segments of the feet are driven into the mud, which serves as a support. The strong hooks of the basal articulation are especially useful, but give a somewhat awkward appearance to the mode of progression. The mechanism of this locomotion may be compared to that of a man who endeavours to advance upon his knees, aiding himself with his toes.

The two pairs of antennæ act in opposite directions; their action may be compared to that of the two anterior paws of a mole. These are the members which enable our crustacean to bury itself in the mud.

With reference to the origin of this organism two suppositions may be formed: it may be descended from a marine species introduced by some means into our lakes; or it may have for its ancestor a freshwater crustacean; the genus *Candona* would be that which it most resembles, though nevertheless very dissimilar. The field of hypotheses remains open upon this point.—*Bibl. Univ.* Oct. 15, 1877, *Arch. des Sci.* p. 334.